

Call Notes: 2/27

Attending: Brendt, Tom, Johnny, Jonathan, Rachel, Sam, Amanda, Lisa, Dustin

- Taking GHD and integrating force sensors into current machinery?
 - Foot plate on GHD?
 - Foot plate - can it be designed to move down or adjust out of the way for different exercises - move out of way for force measurement exercises
 - Used for different muscle group exercises
- What data are you interested in?
 - Always testing with trainers, currently nordbord allows players to test and then see results
 - Very helpful for the athletes to see the graph of force measurement/performance
 - Right-left force split in real time is helpful for return to play metrics
 - Imbalance - 49ers only use the peak max force imbalance, but would be very helpful to get average force imbalance
- Counterweight - is the west side barbell machine close to what you're looking for?
 - Most use some sort of device that attaches to the back behind them
 - Something like a harness on the vest
 - Harness system issues: vest sweat, pulley system
 - Dustin is a fan of the west side barbell machine, also more logistic design flexibility with the barbell device
 - **Major goal: tunable assisted device, doesn't collect sweat, easy to get in/out of, efficient to adjust to different sized athletes**
 - How to attach to athlete, account for weight, account for torso size, vests may slow down quickness with which you can have athletes use machine
- Data collection - what parameters do you want to display?
 - Dustin will send a report with a typical nordbord trial + what comes out + video of testing + list of metrics
 - What is going into an excel file?
 - Putting nordbord results into excel file with other S&C metrics
 - Also longitudinal efforts week-to-week for athletes
- Q's from Dustin?
 - Nothing yet
 - Kenga tech (omni tech device), measurement of all types of degrees of freedom around motion of joints

- Foot contact
- Would foot contact affect force measurement
- Counterweight - how adjustable do they want this to be?
- Portability - how small would a device have to be to be “portable”?
- Adjustable rotation at knee and ankle (like current machine)
- Measure force
 - Up to 2x weight in eccentric loading
 - As a function of time?
 - Max?
- Single leg or both legs - confirm both legs
- Automated settings (where the rotational locations of front and back locations can be set by S&C coach per athlete)
- UI - iPad interface
 - Do the athletes/trainers need to see different data?